

KAIBAB NATIONAL FOREST TUSAYAN RANGER DISTRICT FIRE PREVENTION PLAN 2009



Prepared by: _____ Date: _____
Fire Prevention Officer

Reviewed by: _____ Date: _____
District Fire Management Officer

Recommended by: _____ Date: _____
Forest Fire Management Officer

Approved by: _____ Date: _____
District Ranger

Revised: 07 / 2009

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Introduction

The Tusayan Ranger District lies on the northern portion of the Coconino Plateau in Coconino County Arizona. The district is bordered on the north by Grand Canyon National Park (GCNP), on the east by the Navajo Indian Reservation, on the south by private and state owned lands, and on the west by the Havasupai Indian Reservation.

The total area of the Tusayan District is 327,367 acres. It lies completely within the watershed of the Colorado River. Elevations range from 5610 feet in the northeast portion of the Upper Basin to 7540 feet at the Grandview Fire Lookout Tower. Although the majority of topography on the district is gentle, there are several steep intermittent drainages above the basin on the Coconino rim and on the districts only remnant stratigraphic mountain Red Butte.

The two predominant vegetation types are Pinyon Juniper, found in the lower elevations covering the largest part of the district, and numerous Ponderosa Pine stands in the higher regions. Gamble Oak is found scattered throughout, and in the middle elevations where intermixing of all species are considerable. Common shrubs and forbs found across the district include cliffrose, sagebrush, fernbrush, rabbitbrush, Mormon Tea, Apache Plume, and various species of native grasses and cactus.

Overview

The Tusayan District has several million visitors pass through annually while traveling to the National Park, and can host several thousand recreational users on any given holiday weekend throughout the summer months. It also provides for multiple other uses throughout the year such as special use permittees, fuel wood gatherers, and popular big game hunting seasons.

Fire managers on this district have a very pro-active prescribed fire program which is utilized year round, as well as a comprehensive wildland fire use program which has demonstrated outstanding success in past years. Fire occurrence in this area can happen from March through December depending on annual conditions which fluctuate frequently. Critical fire season usually occurs between mid-May and mid-July when predicted diurnal monsoonal rains return the plateau bringing significant thunder and lightning storms to the area. The district averages approximately 50 fires annually where about 15 percent of those are human caused. The potential for significant wildland fire occurrence in the southwest area has been above normal for the past five years and trends indicate it will continue to remain elevated across much of Arizona due to persistent drought conditions that continue to produce less than average yearly precipitation amounts.

The intent of this plan is to identify human related problematic trends and areas where unwanted wildland fire occurs within and around the Tusayan Ranger District. It is designed to implement proactive education and prevention toward specific audiences which will minimize or eliminate the potential for unwanted human caused wildland fire incidents within the forest system and urban interface.

Objectives

- Provide for and maximize public and firefighter safety.
- Reduce the number of preventable wildland fires caused by human related activities.
- Implement educational programs, disseminate information, and gain voluntary compliance of national forest regulations.
- Increase public awareness about the benefits of a healthy eco-system, and the detrimental consequence of unwanted human caused wildland fire within it.
- Continue to promote interagency cooperation and support a collective effort to promote public education concerning wildfire prevention.
- Minimize damage and losses to valued resources and assets within the forest system and urban interface community.
- Maintain a working, fluid, and cost effective operational action plan that will meet the changing needs of the Tusayan Ranger District for the present and future.

Assessments

This process will identify and provide a workload analysis that will determine the most efficient utilization of resources and staffing to implement and accomplish the desired results of the Fire Prevention Plan in the compartments of the fire management units.

Individual assessments of the units are evaluated by the following components:

- **Hazard** The degree of resistance of an area to control of wildland fire. This usually includes models of topography and fuels but does not consider weather factors.
- **Risk** The level of possibility that a wildland fire may be ignited in an area by human carelessness or activity. Higher levels of risk are usually indicated by an area of concentrated public use with a history of human caused fires and a lack of prevention education efforts.
- **Value** Human improvements or natural resources that are affected positively or negatively by a wildland fire. Value assessments include consideration of the benefits or detriments of fire for the entire ecosystem.

For each component, a rating of **High**, **Medium** or **Low** was assigned. These ratings are relative and not absolute. After assessment of each compartment, the individual ratings were collectively evaluated, and each management unit then received an overall combined rating of all three components.

COMPARTMENTS

(Appendix map page 21)

Red Butte Compartment

IDENTIFIED HIGH RISK AREAS:

- Sensitive Electronic, Radio and Microwave equipment at Red Butte and Grand View Lookout Towers.
- Historic Structure's at Grand View Lookout, Hull Tank, and Old Grand Canyon Airport.
- Grand Canyon Railway.
- Numerous private in holdings.
- Inhabited private structures at Bucklar Ranch and Curley Wallace.
- Multiple APS Power lines. 550KV power line.
- Wildlife Habitat
- Archeological resources

Tusayan Compartment

IDENTIFIED HIGH RISK AREAS:

- Urban Interface Community of Tusayan with all infrastructure values
- Ten-X Campground
- Apache Stables
- Grand Canyon Airport
- Grand Canyon Railway
- Grand Canyon Village

General Actions will be implemented on the compartments during the entire year as a general practice of the Prevention Plan. This will be the responsibility of all fire prevention personnel. (see page 8)

Specific Actions are measures taken when conditions are severe and there is a high potential for an unwanted human related wildland fire incident to take place. These actions are usually initiated when general actions are not adequate to ensure resource protection and public safety. Responsibility of these actions is varied at many levels of the organization, but implementation and compliance will be the primary function of fire prevention and law enforcement personnel. (see page 9)

FIRE PREVENTION COMPARTMENT

Unit: **RED BUTTE**

COMPARTMENT EVALUATION

Hazard	Medium
Risk	Medium
Value	Medium

HAZARD COMPONENT

■ Low

Pinyon / Juniper
Fuel Models 4,6

■ Medium

Open Pine Woodland
Desert Shrub
Fuel Models 2,6,9

■ High

Ponderosa Pine
Fuel Models 2,10,11,12

RISK COMPONENT

- | | | |
|--------------------|--------------------------|------------------|
| ■ Travel Corridor | ■ Off Highway Vehicles | □ Debris Burning |
| □ Urban Intermix | □ Campgrounds - Dev. | □ Children |
| ■ Railroads | ■ Rec.Sites-Dispersed | □ Dumps |
| ■ Powerlines | ■ Water Recreation | ■ Scenic Areas |
| ■ Hunting | ■ Oil / Gas / Mining | □ Construction |
| ■ Electronic Sites | ■ Timber Operations | □ Fireworks |
| ■ Fuelwood Cutting | □ Hang Gliding /Climbing | ■ Maintenance |
| □ Arson | ■ Trails | □ Party Areas |

VALUE COMPONENT

- | | | |
|------------------------|-------------------------|------------------------|
| ■ T & E Wildlife | ■ Residential Dev. | ■ Political Values |
| ■ T & E Plants | □ Commercial Dev. | ■ Cultural Resources |
| ■ Wildlife Habitat | □ Recreation - Dev. | ■ Range / Grazing |
| □ Wilderness | □ Water/ Riparian Areas | ■ Timber |
| □ Wild & Scenic Rivers | ■ Watershed | □ Scenic Byways |
| ■ Visual Resources | ■ Minerals | ■ Recreation Dispersed |

FIRE PREVENTION COMPARTMENT

Unit: **TUSAYAN**

COMPARTMENT EVALUATION

Hazard Risk Value	Medium High High
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HAZARD COMPONENT

■ Low

Pinyon / Juniper
Fuel Models 4,6

■ Medium

Open Pine Woodland
Desert Shrub
Fuel Models 2,6,9

■ High

Ponderosa Pine
Fuel Models 2,10,11,12

RISK COMPONENT

- Travel Corridor
- Urban Intermix
- Railroads
- Powerlines
- Hunting
- Electronic Sites
- Fuelwood Cutting
- Arson

- Off Highway Vehicles
- Campgrounds - Dev.
- Rec.Sites-Dispersed
- ☐ Water Recreation
- ☐ Oil / Gas / Mining
- Timber Operations
- ☐ Hang Gliding /Climbing
- Trails

- Debris Burning
- Children
- ☐ Dumps
- Scenic Areas
- Construction
- Fireworks
- Maintenance
- Party Areas

VALUE COMPONENT

- T & E Wildlife
- T & E Plants
- Wildlife Habitat
- ☐ Wilderness
- ☐ Wild & Scenic Rivers
- Visual Resources

- Residential Dev.
- Commercial Dev.
- Recreation Dev.
- ☐ Water/ Riparian Areas
- Watershed
- ☐ Minerals

- Political Values
- Cultural Resources
- ☐ Range / Grazing
- Timber
- Scenic Byways
- Recreation Dispersed

GENERAL ACTIONS

A. ADMINISTRATION

A-1 Annually evaluate and update a current copy of the Fire Prevention Plan and disseminate information to fire staff and all field going fire and prevention personnel.

A-2 Establish and develop an annual budget cost summary for the implementation of the Fire Prevention Plan. Include estimated expenses for staffing requirements, training, vehicles, maintenance, repairs, supplies, and educational materials.

A-3 Schedule for all district fire prevention technicians to develop and attend wildland fire prevention training when appropriate and available.

A-4 Encourage any prevention personnel who wish to be Fire Protection Officer (FPO) certified to obtain and attend the necessary training courses to be available for enforcement duties and initial attack assignments.

B. EDUCATION / MEDIA

B-1 Actively create and schedule public presentations for local audiences including schools, visitor centers, campgrounds, parades, local employers, scouting organizations, volunteer fire departments and special public events. Coordinate prevention and education activities with GCNP when appropriate.

B-2 Coordinate with Public Affairs Officer to request and release public service announcements (PSAs) or news releases emphasizing fire prevention messages prior to the arrival of fire season.

B-3 Maintain a visual presence with consistent patrols and public contacts. Provide handout material to local merchants and establishments.

B-4 Utilize Smokey Bear program with appearances wherever possible.

C. SIGNING

C-1 Develop and maintain a working sign plan which includes a map of physical locations and sizes of sign structures, and specific prevention messages to be rotated appropriately according to seasonal requirements.

C-2 Post and maintain current Fire Prevention messages and exhibits in high volume visitor areas and points of significant interest.

C-3 Specify annual budget needs to repair, maintain, and reconstruct new sign boards as needed to sustain a professional appearance.

D. LOOKOUTS / DETECTION

D-1 Grandview and Red Butte Lookout Towers will be staffed as needed during the "Fire Season" months (April through October) by temporary seasonal employees. These positions are inclusive in the annual budget requirement of this plan.

D-2 Tour operator permittees are required per contractual agreement, to maintain minimum fire suppression equipment on board vehicles while in the National Forest and report all discovered fires to appropriate officials.

D-3 Continue to maintain and improve communications with agency and commercial aircraft which have been exceedingly helpful with detection and reporting district fire incidents.

SPECIFIC ACTIONS

E. ADMINISTRATION / SPECIAL ORDERS

E-1 Maintain a current and effective “Red Flag Action Plan” as an element of the Prevention Plan. (see page 12).

E-2 A “Red Flag Watch, Warning, or Alert” may be declared as conditions warrant by the recommendation of the District Ranger or Fire Staff Officer. Implementation of a Red Flag Alert is the responsibility of, and typically confirmed by the Forest Supervisor.

E-3 Restriction and Area Closure Orders are commonly implemented when significant dangerous conditions require such actions to ensure resource protection and public safety. They are categorized by Stages 1-5 (see page 13) After being signed by the Forest Supervisor, all orders remain effective until rescinded by a similar order.

E-4 Special Use permittees may be required to adhere to, or be exempted from Special Orders as they are implemented. Specific actions will be defined in the Industrial Fire Plan and information is obtainable from the Forest Contracting Officer.

F. EDUCATION / MASS MEDIA

F-1 Emphasis will be focused on specific regulatory and advisory messages and disseminated widely. Target audiences will be identified and information dispersed at known historical problematic areas where a high concentration of visitors and users are predicted to occupy and impact an area, particularly where there are recognized high values at risk.

F-2 Coordinate with Public Affairs Officer to release specific public service announcements (PSAs) or news releases relating to current conditions, emphasizing prohibitive requirements designed for gaining voluntary compliance of all forest users.

F-3 Ensure compliance by increased daily patrols and visual presence with all available fire resources throughout the district focussing in the urban interface and high volume visitor areas.

F-4 Apprise Grand Canyon NP of any current restrictions and orders affecting visitors in the area.

G. SIGNING

G-1 Fire Danger Indices at entrance roads to the district will be kept current and coordinated per the NFDRS Operating Plan.

G-2 Restriction and closure signs will be posted throughout the district according to current Forest Orders and the Fire Prevention Sign Plan. (see page 13)

H. ENFORCEMENT / INVESTIGATION

H-1 All wildland fire incidents suspected of, or determined to being caused by human related activity will be reported and investigated by qualified personnel. Prevention and fire crew members will secure the point of origin and any other evidence of human activity in the area whenever safely possible.

H-2 Qualified Forest Protection Officers will be responsible for issuing Warnings and Violation Notices when voluntary compliance is unattainable. All other Prevention Technicians will gather and report pertinent information regarding violations to the Prevention Specialist and/or District LEO.

H-3 Night shifts may be scheduled to guarantee compliance during periods under fire restrictions. A minimum of two qualified FPO's will pair up for any shifts worked after dark per agency policy.

H-4 Severity resources can be requested and ordered to assist when conditions warrant.

BUDGET SUMMARY

Personnel costs were configured using the 2009 General Schedule Salary table. Amounts were calculated by multiplying hourly basic rates by the number of fire prevention personnel needed, combined with the length of their prospective permanent and seasonal appointments. These amounts reflect the annual minimum required staffing needs for the efficient implementation of the Prevention Plan.

Other additional itemized costs were estimated by reviewing historical expense patterns combined with foreseeable future necessities to achieve the objectives and desired results of the Prevention Plan. These costs are projected to sufficiently cover the entire district requirement.

ESTIMATED ANNUAL EXPENSES:

PERSONNEL

1	GS-0462-07	PFT FORESTRY TECH PREVENTION SPEC	_____	\$42,000
1	GS-0462-05	ST FORESTRY TECH PREVENTION TECH	_____	\$20,000
1	GS-0462-05	ST FORESTRY TECH LOOKOUT	_____	\$20,000
1	GS-0462-04	ST FORESTRY TECH LOOKOUT	_____	\$15,000

TRAINING / TRAVEL

Courses / Classes / Tuition	_____	\$3,000
Per Diem	_____	\$6,000

VEHICLES / MAINTENANCE

3 Fire Prevention Trucks (Every 5 years...\$60,000) Annual Average	_____	\$12,000
Fuel (mileage)	_____	\$10,000
Vehicle Maintenance (annual cost for 3 vehicles)	_____	\$5,000

EXPENSE ITEMS

Educational Material (posters, displays, publications, printed copies)	_____	\$3,000
Smokey Bear Prevention Supplies	_____	\$3,000
Construction Material (signs, lumber, hardware, paint, tools)	_____	\$2,500
Uniform Allowance (minimum of 3)	_____	\$600

The Budget will be subject to periodical and annual examination. This is intended to maximize cost containment and sustain the most essential expenses by priority while maintaining efficiency. The annual evaluation will be reviewed by the Fire Prevention Specialist, Fire Management Officer and District Ranger.



RED FLAG PLAN

A “Red Flag Event” by description, is a combination of environmental factors that by negative influence, can lead to extreme wildland fire behavior with potential for unmanageable results. The evaluation process consists of assessing unusually low relative humidities and fuel moistures, combined with above normal temperatures and sustained high winds of 25 MPH or greater during preparedness level 3 or above. At the onset of predicted critical fire weather, a methodical procedure of advisories and warnings are implemented and disseminated widely, both to the public and within the agency, emphasizing extreme fire danger and very high potential for an unwanted major wildfire occurrence. Preventive measures are usually enacted at this time. A collaborative decision between Federal and State land managers and the National Weather Service usually dictate when these conditions arise.

Red Flag Events are categorized in the following order:

- **FIRE WEATHER WATCH** is issued to alert the possibility of the development of the above described conditions that (with reasonable confidence) will likely occur in the near future.
- **RED FLAG WARNING** is issued to warn of a predicted, impending or ongoing event that will meet the criteria of a Red Flag Alert within the next 24 hour period. This warning will generally precede a full alert.
- **RED FLAG ALERT** is the most critical stage and implemented when conditions are extreme. It is the responsibility of the Forest Supervisor to initiate and commence any specific actions deemed necessary. All Red Flag Advisories are broadcast by the Williams Dispatch Center on the daily Fire Weather Forecast.

When a Red Flag Alert is issued, the District Ranger and/or Duty Officer will implement any or all of the following actions at his or her discretion.

1. Local district fire resources will be moved and staged in strategic locations for initial attack.
2. The district dozer (when available) will be loaded on the transport and placed on “stand by” for immediate available dispatch.
3. All Prevention Patrol personnel will increase area patrols and public contacts particularly in high volume visitor areas.
4. Industrial contractors within the district are subject to shut down operations for short periods during such alerts.
5. All surrounding cooperating agencies will be notified of any implemented plans affecting public use.
6. Front line office personnel will advise visitors of current and expected conditions and any temporary restrictions that apply.
7. Any qualified district employees can and may be used for support of fire management activities as needed.

FIRE RESTRICTIONS & CLOSURES

The Forest utilizes restrictions and closures to help prevent human-caused wildland fires and to limit the exposure of users during periods of dangerous fire conditions. Implementation normally occurs in five stages based upon: preparedness level, current fire occurrence, projected fire season duration, and severity.

The usual order of restrictions and closures are listed by the following stages:

- **STAGE 1 - Smoking and Campfire Restrictions**

Smoking and Campfire restrictions limit smoking and the building of any open flame fires to specific designated areas. It will usually prohibit such activity in all dispersed areas of the forest.

- **STAGE 2 - Powersaw, Off Road Motor Vehicle Use and Industrial Fire Plan “C”**

The powersaw order can limit the use of powersaws during specific hours of the day, or prohibit their use entirely. The motor vehicle restriction prohibits any motor vehicle from operating or leaving the surface of NFS roads except when parking in an area where devoid of vegetation. The Industrial Plan “C” will be administered by the terms and language within its contents, and in some cases can be exempt from certain restrictions, usually under the direction of the Forest Contracting Officer.

- **STAGE 3 - Camping Restrictions**

Camping Restrictions should be considered prior to moving towards a forest area closure. This step allows some flexibility before actually closing down all or certain areas of the forest. Day use provides the user the ability to still enjoy while maintaining necessary restrictions for the forest.

- **STAGE 4 - Area Closures**

Area Closures are usually implemented when a specific area is known to be at high risk of severe damage from a wildfire or other events. Sensitive watershed areas, endangered wildlife habitat, urban interface and infrastructure sites and Fire Incident areas are some examples where area closures can protect high values at risk.

- **STAGE 5 – Forest Closures**

A complete Forest Closure is rare and used only when severe wildland fire conditions exist. It is intended to ensure both public safety and resource protection while minimizing potential for costly suppression actions. The lack of available suppression resources in a region can often influence this type of closure.

All Forest Orders implemented are also required to be officially rescinded by the Forest Supervisor. The same level of coordination between districts, adjacent forests, and Fire Management Staff should occur when deciding to rescind any signed order. The Public Affairs Officer will notify the media and the Williams Dispatch Center will notify the districts.

Additional detailed information regarding the Restriction and Closure Order process can be obtained from appendix “D” in the 2008 Fire Management Plan.

FIRE HISTORY AND OCCURRENCE

A chronological history of human caused fires for the past decade on the Tusayan Ranger District are included with map in the appendix.(see pages 16-18) This demonstrates problem areas where human related activity caused more unwanted fires, thus increasing additional concentrated fire prevention efforts focused in specific locations.

RED BUTTE COMPARTMENT PRIMARY FIRE CAUSE : 1996 – 2006

CAUSE	# FIRES	SIZE CLASS	CAUSE	# FIRES	SIZE CLASS
Campfire	8	6-A 2-B	Railroad	2	2-B
Smoking	0		Arson	1	1-A
Equipment	0		Children	0	
Misc	2	2-B	Debris	1	1-A

TUSAYAN COMPARTMENT PRIMARY FIRE CAUSE : 1996 – 2006

CAUSE	# FIRES	SIZE CLASS	CAUSE	# FIRES	SIZE CLASS
Campfire	59	54-A 5-B	Railroad	3	2-A 1-B
Smoking	3	3-A 1-B	Arson	2	1-A 1-B
Equipment	0		Children	3	3-A
Misc	3	3-A	Debris	1	1-A

DISTRICT FIRE PREVENTION SIGN PLAN

The purpose of this Sign Plan is to provide visual educational and regulatory messages regarding fire in the eco-system, and promote responsible environmental awareness and behavior to all forest users and visitors. It will also serve as a guide to fire prevention personnel when displaying seasonal messages and information posted throughout the district annually.

- It is important to maintain a clean professional appearance on all poster boards and sign structures at all times. Maintenance and repair should be regularly scheduled.
- Signs should be posted at every major ingress road accessing the district, as well as all recreational sites and high volume visited areas.
- All messages should be current and appropriate to seasonal conditions.
- Signing is a requirement for effective voluntary compliance and regulatory enforcement.
- The implementation of district signing is a general action which is utilized year round.

The following is a list of specific locations and poster boards sizes across the Tusayan Ranger District. Additional signs will be constructed in the future at frequent ingress points. A map of sign board locations is included in the appendix. (see page 20)

LOCATION

SIZE

FR 328 & HIGHWAY 64	16" x 44"
FR 328 & 328A	16" x 44"
FR 328A & NPS BOUNDARY	54" x 44"
LONG JIM LOOP & HIGHWAY 64	16" x 44"
LONG JIM LOOP & RP DRIVE	16" x 44"
FR 302 & HIGHWAY 64S	16" x 44"
FR 302 & HIGHWAY 64S	54" x 44"
TEN-X CAMPGROUND, MULTIPLE- INFO BOARDS	
FR 688 & HIGHWAY 64S	16" x 44"
FR 688 & HIGHWAY 64S	54" x 44"
FR 306 & HIGHWAY 64S	16" x 44"
FR 347 & HIGHWAY 64S	16" x 44"
FR 347 & HIGHWAY 64S	54" x 44"
FR 305 & HIGHWAY 64S	54" x 44"
FR 320 & HIGHWAY 64S	16" x 44"
MP 224.5 HIGHWAY 64S, ADJECTIVE CLASS SIGN	
MP 224.7 HIGHWAY 64S	54" x 44"
FR 310 & NPS BOUNDARY	16" x 44"
FR 310 GRANDVIEW TOWER INFO BOARD	9" x 12"
FR 311A RUSSELL TANK INFO BOARD	16" x 44"
FR 305 & 776 PWR LINE	16" x 44"
FR 301 S. BOUNDARY	16" x 44"
FR307 & HIGHWAY 64E	16" x 44"
FR 307 WAGONER TANK	16" x 44"
MP275 HIGHWAY 64E, ADJECTIVE CLASS SIGN	

PROGRAM EVALUATION

The Prevention Specialist will be responsible for monitoring and evaluating the results of all activities within the existing plan and reporting those results to the District Fire Management Officer, District Ranger, and the Kaibab NF Fire Management Staff.

The Prevention Specialist will also coordinate with district leadership to determine (if any) changes or adjustments that may be necessary to improve on the efficiency and success of the current and / or future plan. Modifications may be implemented at any time to meet the changing needs of the district as specified in the objectives.

An annual evaluation of the individual elements of the Prevention Plan will be a general action that will be reviewed collectively by the district officials aforementioned. This will typically take place at the closing stages of the critical fire season months each year.

This document will remain in electronic form as well as printable format to facilitate future updates and periodical revision.

*** The only changes I am recommending to the upcoming years plan are as follows:**

Personnel Roster

Changing from two GS-0462-04 seasonal Prevention Technicians to one GS-0462-05 position.
Changing one Lookout position to a GS-0462-05

Most recent evaluation date: 00/00/2009

Prepared by:

Bob Blasi Fire Prevention Specialist
Tusayan Ranger District Kaibab National Forest

APPENDIX A

HUMAN – STAT FIRE CAUSES FOR ADMIN UNIT 030704 FROM 1996-2008

R F	YR	#	D	STAT CAUSE - ACRES	LAT / LON	LEGAL	DIS DATE
0307	1996	008	04	CAMPFIRE -A .1	35 52 06 -111 58 06	0290N 0040E 28	96-APR-10
0307	1996	019	04	CAMPFIRE -B .3	35 53 54 -112 07 42	0290N 0020E 13	96-MAY-04
0307	1996	027	04	CHILDREN -A .1	35 58 12 -112 07 42	0300N 0020E 24	96-MAY-14
0307	1996	166	04	CAMPFIRE -A .2	36 00 48 -112 12 00	0300N 0020E 05	96-AUG-01
0307	1996	255	04	CAMPFIRE -A .1	35 59 06 -112 07 42	0300N 0020E 13	96-SEP- 24
0307	1996	273	04	MISC -B 1.0	35 53 54 -111 58 06	0290N 0040E 16	96-OCT-25
0307	1997	001	04	SMOKING -A .1	35 58 12 -112 06 42	0300N 0030E 19	97-MAR-27
0307	1997	046	04	CAMPFIRE -A .1	35 58 12 -112 07 00	0300N 0030E 19	97-JUN-24
0307	1997	051	04	ARSON -A .1	35 59 06 -112 07 42	0300N 0030E 13	97-JUN-30
0307	1997	052	04	RAILROAD -B 1.5	35 52 06 -112 15 12	0290N 0010E 26	97-JUL-04
0307	1997	055	04	SMOKING -B 1.3	35 56 24 -112 07 30	0300N 0020E 36	97-JUL-12
0307	1997	118	04	CAMPFIRE -A .1	35 59 06 -112 07 42	0300N 0020E 13	97-AUG-09
0307	1997	130	04	CAMPFIRE -A .1	35 55 36 -112 08 48	0290N 0020E 02	97-AUG-26
0307	1998	001	04	CAMPFIRE -A .1	35 59 06 -112 07 42	0300N 0020E 13	98-APR-14
0307	1998	004	04	CAMPFIRE -A .1	35 56 30 -112 04 30	0300N 0030E 33	98-MAY-04
0307	1998	006	04	CAMPFIRE -A .1	35 55 36 -112 08 48	0290N 0020E 02	98-MAY-20
0307	1998	009	04	CAMPFIRE -A .1	35 57 18 -112 04 30	0300N 0030E 28	98-MAY-30
0307	1998	010	04	CHILDREN -A .1	35 59 06 -112 07 42	0300N 0020E 13	98-JUN-01
0307	1998	013	04	CAMPFIRE -A .1	35 55 36 -112 08 48	0290N 0020E 02	98-JUN-07
0307	1998	019	04	CAMPFIRE -A .1	35 59 06 -112 07 42	0300N 0020E 13	98-JUN-20
0307	1998	020	04	CAMPFIRE -A .1	35 55 36 -112 08 48	0290N 0020E 02	98-JUN-20
0307	1998	026	04	CAMPFIRE -A .1	35 35 36 -112 08 48	0290N 0020E 02	98-JUN-24
0307	1998	028	04	CAMPFIRE -B .3	35 59 54 -112 08 48	0300N 0020E 11	98-JUN-25
0307	1998	029	04	CAMPFIRE -A .1	35 55 36 -112 08 48	0290N 0020E 02	98-JUN-26
0307	1998	034	04	CAMPFIRE -B 5.0	35 58 12 -111 43 12	0300N 0060E 23	98-JUN-30
0307	1998	036	04	CAMPFIRE -A .1	36 00 48 -112 12 00	0300N 0020E 05	98-JUL-03
0307	1998	037	04	CAMPFIRE -A .1	35 55 36 -112 08 48	0290N 0020E 02	98-JUL-03
0307	1998	038	04	CAMPFIRE -A .1	35 55 36 -112 08 48	0290N 0020E 02	98-JUL-04
0307	1998	047	04	CAMPFIRE -A .1	35 55 36 -112 08 48	0290N 0020E 02	98-JUL-11
0307	1998	059	04	CAMPFIRE -A .1	35 55 36 -112 08 18	0290N 0020E 02	98-JUL-19
0307	1998	093	04	CAMPFIRE -A .1	35 57 18 -112 06 42	0300N 0030E 30	98-AUG-11
0307	1998	114	04	CAMPFIRE -A .1	35 52 06 -112 04 30	0290N 0030E 28	98-SEP-23
0307	1998	116	04	CAMPFIRE -A .1	35 54 42 -112 08 48	0290N 0020E 11	98-SEP-26
0307	1998	119	04	CAMPFIRE -A .2	35 59 12 -112 07 18	0300N 0020E 13	98-NOV-06
0307	1998	121	04	CAMPFIRE -B .3	35 49 30 -111 52 54	0280N 0050E 08	98-NOV-25

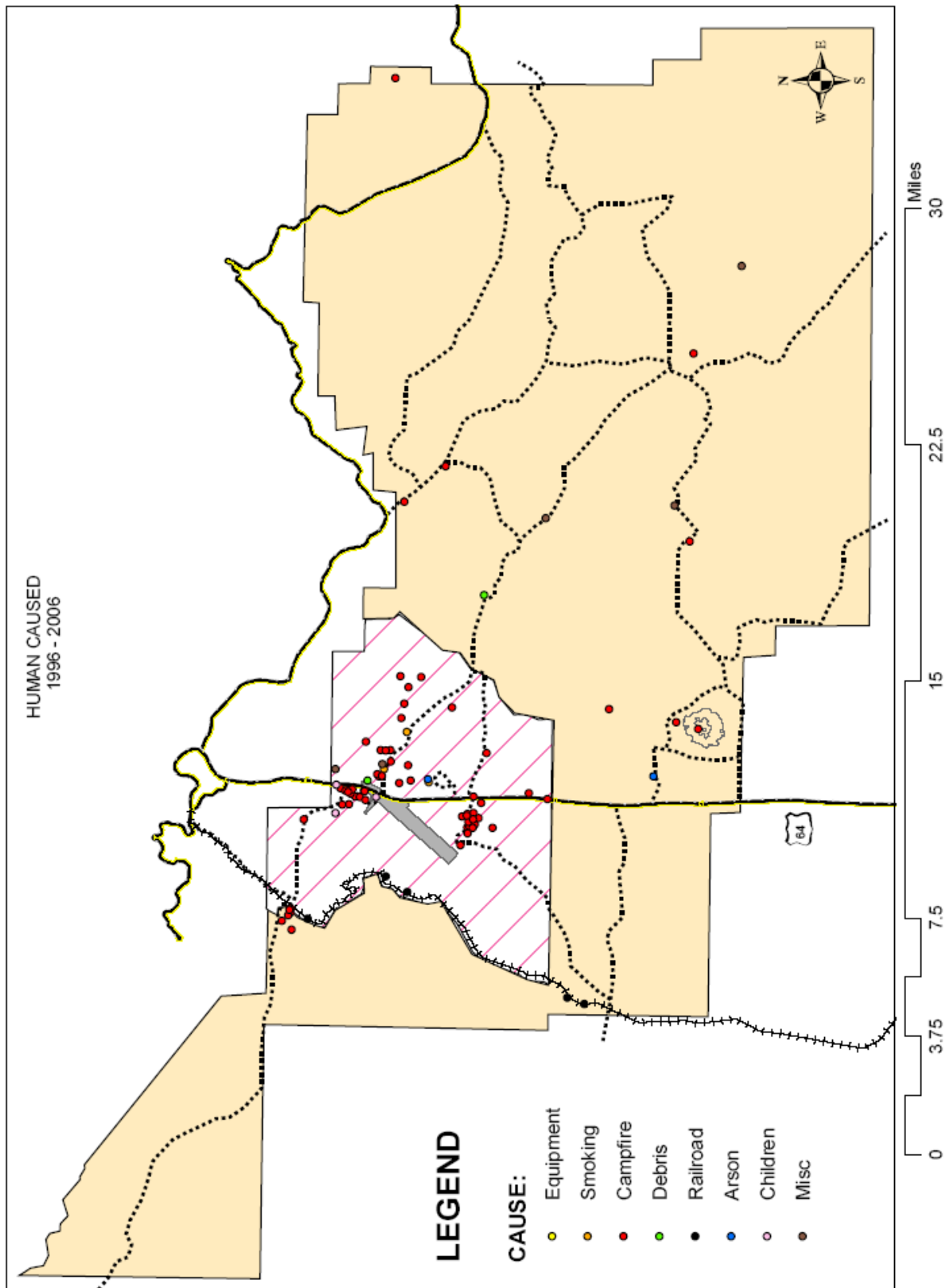
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0307	1999	010	04	CAMPFIRE	-A	.1	35 53 09 -112 07 07	0290N 0020E 13	99-MAY-16
0307	1999	011	04	CAMPFIRE	-A	.1	35 49 05 -112 05 07	0280N 0030E 08	99-MAY-28
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0307	1999	046	04	CAMPFIRE	-A	.1	35 59 02 -112 07 05	0300N 0020E 13	99-JUN-27
0307	1999	048	04	CAMPFIRE	-A	.2	35 59 01 -112 07 07	0300N 0020E 13	99-JUN-30
0307	1999	065	04	SMOKING	-A	.1	35 57 03 -112 04 05	0300N 0030E 28	99-JUL-30
0307	1999	070	04	CAMPFIRE	-A	.1	35 55 05 -112 08 03	0290N 0020E 02	99-AUG-06
0307	1999	072	04	CAMPFIRE	-A	.1	35 58 01 -112 07 23	0300N 0030E 24	99-AUG-08
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0307	2008	130	04	CAMPFIRE	-A	.2	35 55 33	-112 06 04	0290N 0030E 06	08-OCT-20	

	#1	#2	#3	#4	#5	#6	#7	#8	#9	TOTAL	TOTAL
YEAR	LIGHT NING	EQUIP MENT	SMOK ING	CAMP FIRE	DEBRIS BURN	RAIL ROAD	ARSON	CHILD REN	MISC	ACRES	COST
1996				4				1	1	1.7	\$1000
1997			2	3		1	1			3.3	\$2300
1998				21				1		7.6	\$7500
1999			1	12	1			1	1	2.7	\$5000
2000				5						.5	\$1600
2001				5	1					3.3	\$2325
2002				1		2				.5	\$1100
2003				2	1		1			.4	\$400
2004				6						.9	\$1500
2005				2	1	2				1.3	\$1800
2006				6						.4	\$350
2007				2	1		2			6.6	\$10000
2008				13						2051	\$458847

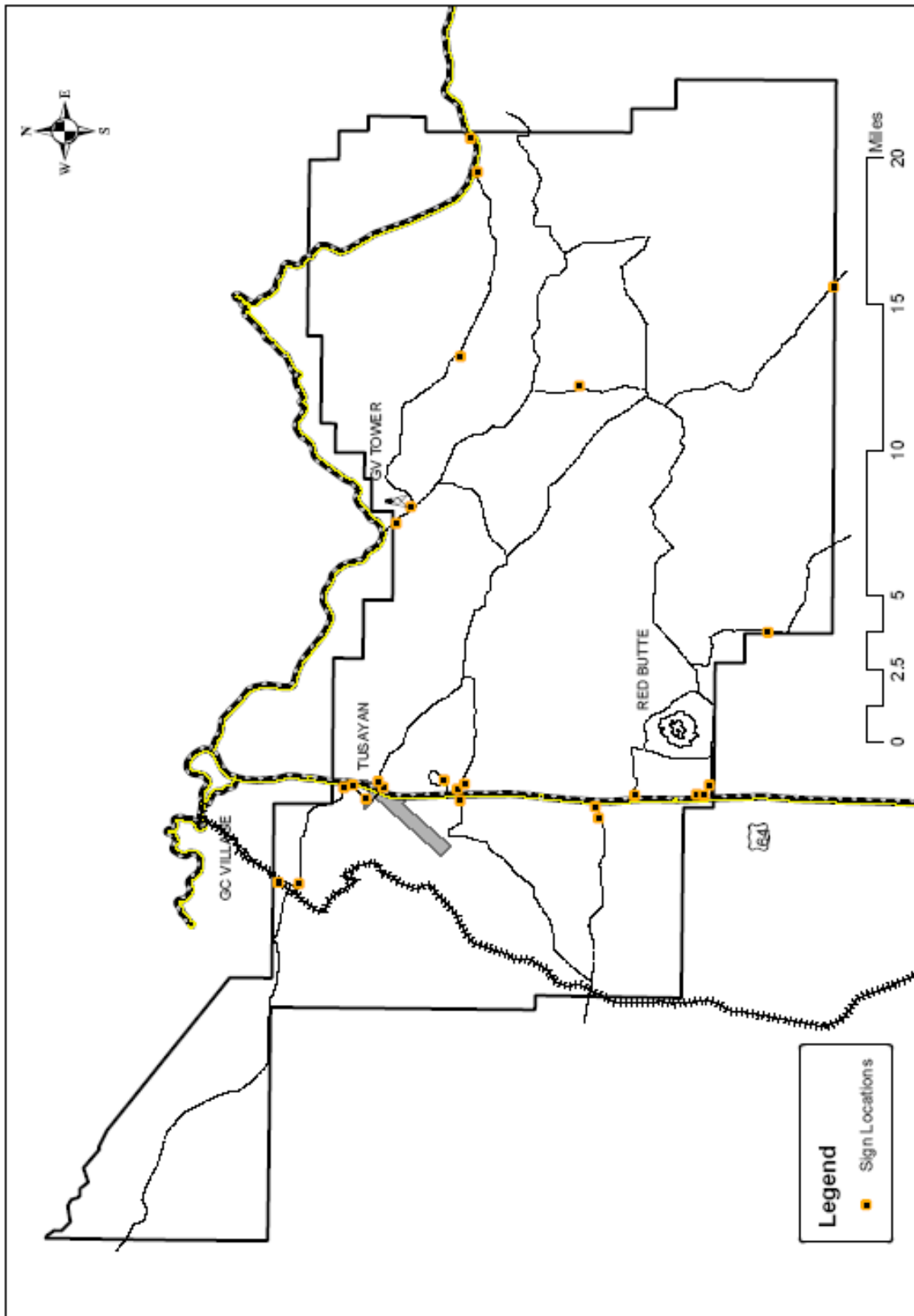
APPENDIX B

FIRE HISTORY MAP

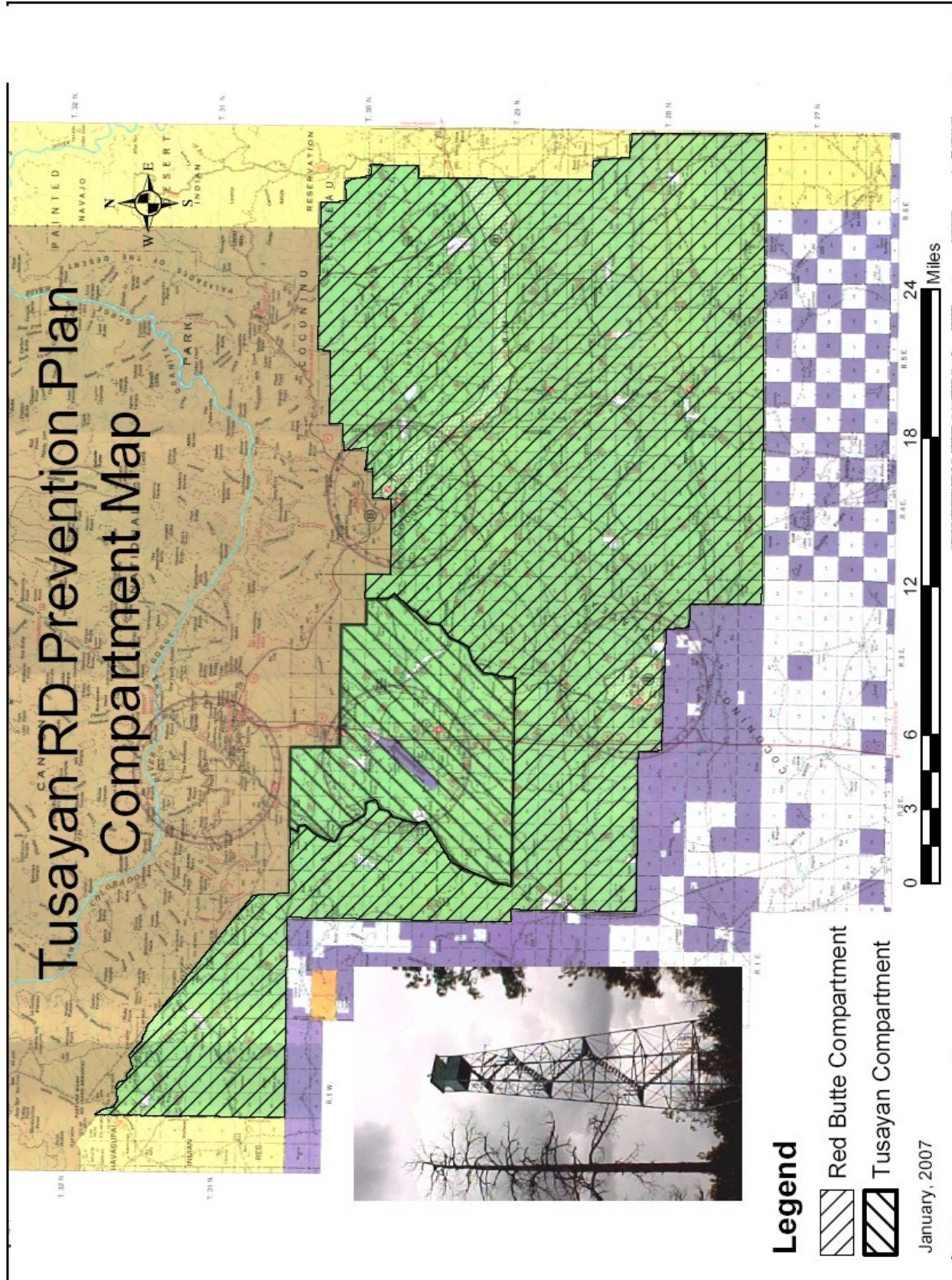


APPENDIX C

SIGN LOCATION MAP



APPENDIX D



APPENDIX E

CT7.22 - EMERGENCY FIRE PRECAUTIONS (5/2008)

Purchaser will restrict operations in accordance with the attached Emergency Fire Precaution Schedule. When there is a predicted change, Forest Service shall inform the Purchaser by 6:00 pm, Mountain Standard Time (7:00 pm MDT), of the predicted change in the Industrial Fire Precaution Plan. The procedure for the Forest Service to notify the Purchaser of a change shall be stated in the timber sale fire plan required by BT7.1. The Contracting Officer may, after consultation with the Forest Supervisor, adjust the predicted Industrial Fire Precaution Plan for local weather conditions on Sale Area. Changes in the predicted Industrial Fire Precaution Plan shall be agreed to in writing.

EMERGENCY FIRE PRECAUTION SCHEDULE	
FIRE RESTRICTION/CLOSURE "STAGE"	
"STAGED" RESTRICTION LEVELS	INDUSTRIAL FIRE PRECAUTION PLAN
NO RESTRICTIONS	A
STAGE I	B
STAGE II	C
STAGE III (PARTIAL FOREST CLOSURE) **	C or D
STAGE IV (TOTAL FOREST CLOSURE)	D
RED FLAG WARNING (Issued by National Weather Service)	D

**** Partial Forest Closure:**

Timber sale areas which are outside the boundaries of the partial forest closure may continue to operate under Industrial Fire Precaution Plan "C" operating criteria as agreed upon between the CO and Purchaser in writing.

Timber sale areas within the boundaries of the proclaimed partial forest closure area are to operate under Industrial Fire Precaution Plan "D".

Staged restriction levels are determined by the Line Officer in conjunction with Fire Management Officer(s) and Contracting Officer(s). The process is a mix of quantitative and subjective measures which allows Line Officers a broad level of discretion considering local conditions and issues when deciding to implement fire restrictions and/or area closures.

INDUSTRIAL FIRE PRECAUTION PLAN - DESCRIPTION

A - Normal Fire Precautions (CT7.2) No fire guard required.

B - Normal Fire Precautions (CT7.2) except designated areas for smoking and warming or cooking fires require a written permit. Purchaser will provide fire guard (CT7.21).

C - All power saws and mechanical fellers except for mechanical fellers equipped with hydraulic shears will shut down from 9:00 am until 8:00 pm Mountain Standard Time (10:00 am to 9:00 pm MDT), except chainsaws may be used from 9:00 am until 2:00 pm Mountain Standard Time (10:00 am to 3:00 pm MDT), for limbing on landings cleared to mineral soil. Loading is authorized to continue from 12:00 noon until 2:00 pm, Mountain Standard Time (1:00 pm to 3:00 pm MDT), on landings cleared to mineral soil. Log hauling trucks must be out of the Sale Area to a surfaced road by 2:00 pm, Mountain Standard Time (3:00 pm MDT). Shutdown from 12:00 noon until 8:00 pm Mountain Standard Time (1:00 pm to 9:00 pm MDT); all machine treatment of slash; mechanical equipment used for shearing, bunching, or delimbing; skidding; cable yarding; blasting; welding; metal cutting; and clearing. Operations on mineral soil involving road excavation, watering, grading, surfacing, rock crushing, and/or other equipment maintenance may continue. No smoking, warming or cooking fires are permitted at any time. Purchaser will provide fire guard (CT7.21).

D - Shutdown all operations; except operations on mineral soil involving road excavation, watering, grading, gravel surfacing, and rock crushing may continue with special Forest Service permit. Purchaser will provide fire guard (CT7.21).